



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,104	11/17/2003	Yoshiaki Hamano	117786	9762
25944	7590	05/24/2007	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			ALEJANDRO, RAYMOND	
		ART UNIT	PAPER NUMBER	
		1745		
			MAIL DATE	DELIVERY MODE
			05/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/713,104	HAMANO ET AL.	
	Examiner	Art Unit	
	Raymond Alejandro	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 April 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 5-9,11-13,17 and 18 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,10 and 14-16 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

The following Examiner's letter addresses applicant's amendment dated 04/12/07. The applicant has overcome only the 35 USC 102 rejections over the EP'817, the JP'277 and Kobayashi et al'041. Refer to the abovementioned amendment for specific details on applicant's rebuttal arguments and remarks. Accordingly, the present claims are finally rejected over a previously stated ground of rejection and new grounds of rejection based upon combinations of references as shown hereinbelow and for the reasons of record:

Election/Restrictions

1. Claims 5-9, 11-13 and 17-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09/11/06.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1745

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 10 and 14-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicant's Admission of Prior Art (herein called the AAPA) (*See applicant's specification at pages 1-3*).

Regarding claims 1-4:

The AAPA presents different publications teaching positive electrode materials for lithium secondary batteries wherein the positive electrode material has a Li-Ni-Co-O or Li-Ni-Co-Ba-O system composition including specific compounds represented by chemical formulae $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ wherein A is one alkaline earth metal element such as Ba and x ranges from 0-0.10 and B is at least one transition metal element other than Ni; and/or $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ forming secondary particles wherein A may be Ba, and x ranges from 0.0 - 0.10 and B is at least one transition metal element (*See applicant's specification at pages 1-3*).

Examiner's note: applicant further discloses that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (*See applicant's specification at page 4, last full paragraph*); particularly, such arrangement allows the production of a positive electrode

material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (See applicant's specification at page 6, last full paragraph, item-3); yet more particularly, applicant also discloses that a component for forming an amorphous phase of an oxide composed of one or plural elements selected from the group consisting of Ba, inter alia, is mixed at an extremely small amount of below 0.01 mol into Li-Ni-Co-O system raw material (See applicant's specification at page 10, 1st full paragraph). That being said, since the positive electrode composition of the AAPA includes Ba in the same number of moles or molar range which allows easy formation of an amorphous phase of the oxide, it is contended that the presence of an amorphous phase of the oxide, as well as the specific particle dispersion and/or phase formation the surface of the particle are inherent to the specific composition of the positive active material of the AAPA. In short, element added to the positive electrode composition (i.e. Ba) and number of moles thereof in the AAPA's electrode fully circumscribes applicant's specific composition (in terms of material and molar amounts), therefore, the resulting electrode material of the AAPA also allows easy formation of amorphous phase thereof, thereby, it also exhibits the same degree of non-crystalline characteristic (amorphousness) as applicant's claimed positive electrode material.

Regarding claims 10 and 14-16:

The AAPA discloses lithium battery including the disclosed positive active material (See applicant's specification at pages 1-3).

Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977)*. Where applicant claims a composition in terms of a

Art Unit: 1745

function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102/103. The burden of proof is on applicant *In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980)* (quoting *In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)*). See MPEP 2112.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1745

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-4, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the European publication EP 0849817 (heretofore 'the EP'817') as applied to claim 1 above, and further in view of Applicant's Admission of Prior Art (herein called the AAPA) (*See applicant's specification at pages 1-3*).

The above claims are directed to positive electrode material powder for a lithium secondary battery wherein the disclosed inventive concept includes the inclusion of an amorphous phase of oxide.

On the matter of claim 1:

The EP'817 makes known a positive active material for lithium battery including a Li-containing amorphous nickel oxide represented by a chemical composition formula of Li_xNiO_2 and which may further contain cobalt from 2-60 mol% (ABSTRACT/Page 2, Line 44-50) so as to have a chemical composition formula $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{O}_2$ (Page 2, lines 45-50), or $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{M}_z\text{O}_2$ wherein M is at least one selected from the group consisting of Co, Al or P (Page 3, lines 5-10 and lines 50-58). EXAMPLES 1-2 illustrate the powdery form of the resulting material.

On the matter of claims 2-4:

Since the EP'817 discloses the formation of a Li-containing amorphous nickel oxide, it is noted that the specific particle dispersion and/or phase formation the surface of the particle is inherent to the amorphous phase formed in the positive active material thereof.

On the matter of claims 10 and 14-16:

The EP'817 discloses lithium battery including the disclosed positive active material (ABSTRACT).

The EP'817 describes a positive electrode material powder as disclosed above. However, the EP'817 does not explicitly disclose the Ba component.

The AAPA presents different publications teaching positive electrode materials for lithium secondary batteries wherein the positive electrode material has a Li-Ni-Co-O or Li-Ni-Co-Ba-O system composition including specific compounds represented by chemical formulae $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ wherein A is one alkaline earth metal element such as Ba and x ranges from 0-0.10 and B is at least one transition metal element other than Ni; and/or $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ forming secondary particles wherein A may be Ba, and x ranges from 0.0 - 0.10 and B is at least one transition metal element (*See applicant's specification at pages 1-3*).

Examiner's note: applicant further discloses that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (*See applicant's specification at page 4, last full paragraph*); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (*See applicant's specification at page 6, last full paragraph, item-3*); yet more particularly, applicant also discloses that a component for forming an amorphous phase of an oxide composed of one or plural elements selected from the group consisting of Ba, *inter alia*, is mixed at an extremely small amount of below 0.01 mol into Li-Ni-Co-O system raw material (*See applicant's specification at page 10, 1st full paragraph*). That being said, since the positive electrode composition of the AAPA includes Ba in the same number of moles or molar range which allows easy formation of an amorphous phase of the oxide, it is

contended that the presence of an amorphous phase of the oxide, as well as the specific particle dispersion and/or phase formation the surface of the particle are inherent to the specific composition of the positive active material of the AAPA. In short, element added to the positive electrode composition (i.e. Ba) and number of moles thereof in the AAPA's electrode fully circumscribes applicant's specific composition (in terms of material and molar amounts), therefore, the resulting electrode material of the AAPA also allows easy formation of amorphous phase thereof, thereby, it also exhibits the same degree of non-crystalline characteristic (amorphousness) as applicant's claimed positive electrode material.

By compounding the teachings of the prior art, it would have been obvious to a person possessing a level of ordinary skill in the pertinent art at the time the invention was made to add the Ba component of the AAPA to the amorphous positive electrode material of EP'817 as it is known in the art that that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (See applicant's specification at page 4, last full paragraph); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (See applicant's specification at page 6, last full paragraph, item-3). Thus, the addition of Ba to the amorphous material of the EP'817 enhances the amorphousness of that material.

10. Claims 1-4, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese publication JP 06-275277 (heretofore 'the JP'277') as applied to claim 1 above, and further in view of Applicant's Admission of Prior Art (herein called the AAPA) (See applicant's specification at pages 1-3).

Art Unit: 1745

As to claim 1:

The JP'277 discloses a lithium secondary battery including a positive electrode body with a positive electrode active material containing Li, Co and phosphorous (ABSTRACT). A cobalt oxide including phosphate material (CLAIMS 1-2) forming an amorphous positive electrode material is further disclosed (P0009). Particle sizes (this, powder material) is the positive electrode material is disclosed (P0072, 0086). Table 4 shows a positive electrode composition comprising at least Li, Co, Ni, P in oxide forms (See TABLE 4).

As to claims 2-4:

Since the JP'277 discloses the formation of a Li-containing amorphous materials in the form of oxides, it is noted that the specific particle dispersion and/or phase formation the surface of the particle is inherent to the amorphous phase formed in the positive active material thereof.

As to claims 10 and 14-16:

The JP'277 discloses lithium battery including the disclosed positive active material (ABSTRACT).

The JP'277 describes a positive electrode material powder as disclosed above. However, the JP'277 does not explicitly disclose the Ba component.

The AAPA presents different publications teaching positive electrode materials for lithium secondary batteries wherein the positive electrode material has a Li-Ni-Co-O or Li-Ni-Co-Ba-O system composition including specific compounds represented by chemical formulae $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ wherein A is one alkaline earth metal element such as Ba and x ranges from 0-0.10 and B is at least one transition metal element other than Ni; and/or $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$

forming secondary particles wherein A may be Ba, and x ranges from 0.0 - 0.10 and B is at least one transition metal element (*See applicant's specification at pages 1-3*).

Examiner's note: applicant further discloses that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (*See applicant's specification at page 4, last full paragraph*); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (*See applicant's specification at page 6, last full paragraph, item-3*); yet more particularly, applicant also discloses that a component for forming an amorphous phase of an oxide composed of one or plural elements selected from the group consisting of Ba, *inter alia*, is mixed at an extremely small amount of below 0.01 mol into Li-Ni-Co-O system raw material (*See applicant's specification at page 10, 1st full paragraph*). That being said, since the positive electrode composition of the AAPA includes Ba in the same number of moles or molar range which allows easy formation of an amorphous phase of the oxide, it is contended that the presence of an amorphous phase of the oxide, as well as the specific particle dispersion and/or phase formation the surface of the particle are inherent to the specific composition of the positive active material of the AAPA. In short, element added to the positive electrode composition (i.e. Ba) and number of moles thereof in the AAPA's electrode fully circumscribes applicant's specific composition (in terms of material and molar amounts), therefore, the resulting electrode material of the AAPA also allows easy formation of amorphous phase thereof, thereby, it also exhibits the same degree of non-crystalline characteristic (amorphousness) as applicant's claimed positive electrode material.

Art Unit: 1745

By compounding the teachings of the prior art, it would have been obvious to a person possessing a level of ordinary skill in the pertinent art at the time the invention was made to add the Ba component of the AAPA to the amorphous positive electrode material of JP'277 as it is known in the art that that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (See applicant's specification at page 4, last full paragraph); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (See applicant's specification at page 6, last full paragraph, item-3). Thus, the addition of Ba to the amorphous material of the JP'277 enhances the amorphousness of that material.

11. Claims 1-4, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al 2002/0055041 as applied to claim 1 above, and further in view of Applicant's Admission of Prior Art (herein called the AAPA) (*See applicant's specification at pages 1-3*).

Regarding claim 1:

Kobayashi et al disclose lithium secondary battery comprising at least a positive electrode wherein the electrode has an active material which has at least an amorphous phase (ABSTRACT/ P0021-0022,0045, 0051, 0068). Particularly, the positive electrode material is composed of at least one or more elements selected from Co, Ni, among others (P0024, 0046, 0051-0052) and oxides thereof (P0051). Disclosed is that transition metal compounds are desirable metal-containing compounds that serve as an active material (P0065). Lithium is intercalated therein (P0024, 0075-0076, 0081). At least EXAMPLES 7 and 15 shows lithium cobalt nickel oxides and respective particle sizes (See EXAMPLES 7 and 15)

Regarding claims 2-4:

Given that Kobayashi et al reveals Li-Co-Ni-oxide materials exhibiting an amorphous phase, it is noted that the specific particle dispersion and/or phase formation the surface of the particle is inherent to the amorphous phase formed in the positive active material thereof.

Regarding claims 10 and 14-16:

Kobayashi et al disclose lithium battery including the disclosed positive active material (ABSTRACT).

Kobayashi et al describes a positive electrode material powder as disclosed above. However, Kobayashi et al does not explicitly disclose the Ba component.

The AAPA presents different publications teaching positive electrode materials for lithium secondary batteries wherein the positive electrode material has a Li-Ni-Co-O or Li-Ni-Co-Ba-O system composition including specific compounds represented by chemical formulae $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ wherein A is one alkaline earth metal element such as Ba and x ranges from 0-0.10 and B is at least one transition metal element other than Ni; and/or $\text{Li}_{1-x-a}\text{A}_x\text{Ni}_{1-y-b}\text{B}_y\text{O}$ forming secondary particles wherein A may be Ba, and x ranges from 0.0 - 0.10 and B is at least one transition metal element (*See applicant's specification at pages 1-3*).

Examiner's note: applicant further discloses that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (*See applicant's specification at page 4, last full paragraph*); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (*See applicant's specification at page 6, last full paragraph, item-3*); yet more particularly, applicant also discloses that a component for forming

an amorphous phase of an oxide composed of one or plural elements selected from the group consisting of Ba, inter alia, is mixed at an extremely small amount of below 0.01 mol into Li-Ni-Co-O system raw material (See applicant's specification at page 10, 1st full paragraph). That being said, since the positive electrode composition of the AAPA includes Ba in the same number of moles or molar range which allows easy formation of an amorphous phase of the oxide, it is contended that the presence of an amorphous phase of the oxide, as well as the specific particle dispersion and/or phase formation the surface of the particle are inherent to the specific composition of the positive active material of the AAPA. In short, element added to the positive electrode composition (i.e. Ba) and number of moles thereof in the AAPA's electrode fully circumscribes applicant's specific composition (in terms of material and molar amounts), therefore, the resulting electrode material of the AAPA also allows easy formation of amorphous phase thereof, thereby, it also exhibits the same degree of non-crystalline characteristic (amorphousness) as applicant's claimed positive electrode material.

By compounding the teachings of the prior art, it would have been obvious to a person possessing a level of ordinary skill in the pertinent art at the time the invention was made to add the Ba component of the AAPA to the amorphous positive electrode material of Kobayashi et al as it is known in the art that that Ba, among other elements, allows easy formation of the amorphous phase of the oxide (See applicant's specification at page 4, last full paragraph); particularly, such arrangement allows the production of a positive electrode material for a Li-secondary battery having an amorphous phase of an oxide dispersed within a particle and also at a surface of each particle (See applicant's specification at page 6, last full paragraph, item-3).

Art Unit: 1745

Thus, the addition of Ba to the amorphous material of Kobayashi et al enhances the amorphousness of that material.

Response to Arguments

12. Applicant's arguments with respect to the afore-captioned claims have been considered but are moot in view of the new ground(s) of rejection. See items 9-11 supra.

13. Applicant's arguments filed 04/12/07 have been fully considered but they are not persuasive.

14. Applicant did overcome the 35 USC 102 rejections over the EP'817, the JP'277 and Kobayashi et al'041. Thus, it is unnecessary to address applicant's arguments concerning these references as the deficiency therein as noted by the applicant has been mitigated by the disclosure of a secondary reference (i.e. the AAPA). See items 9-11 supra for comprehensive discussion of new grounds of rejection under Section 103.

15. With respect to the rejection under Section 102/103 based upon the AAPA, the examiner has carefully evaluated and analyzed the entire body of arguments advanced by the applicant but they are still deemed to be insufficient to overcome that rejection. In essence, applicant has articulated that "*the AAPA does not teach or suggest that each particle which constitutes the powder has an amorphous phase of an oxide*", and "*the conclusion in the Office Action that it is contended that the presence of an amorphous phase of the oxide, as well as the specific particle dispersion and/or phase formation the surface of the particulate are inherent to the specific composition of the positive active material of the AAPA is incorrect as a matter of law*" and "*the specification specifically demonstrates that these properties in fact are not inherent in all*

particles". Much more importantly is applicant's own statement that "*the AAPA is completely silent with respect to whether the particles have an amorphous phase of an oxide or not*" (See 04/12/07 amendment on page 8, 3rd full paragraph). From this statement, it is immediately clear that applicant himself is not completely sure that the AAPA does or does not disclose the claimed characteristics. This is the essence of the above rejection under Sections 102/103. This is exactly what supports the ground of rejection based upon anticipation/obviousness. Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function or characteristic is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102/103. The burden of proof is on applicant *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (*quoting In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). *See MPEP 2112.*

**ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE
SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE
EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW
INHERENCY, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN
UNOBFVIOUS DIFFERENCE.**

"[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. *In re*

Art Unit: 1745

Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). *See MPEP 2112.*

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established.

In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “*When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.*” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. *See also Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). *See MPEP 2112.*

Accordingly, the examiner also asserts that it is not enough that applicant’s representative personally believes that the prior art does not show or teach such inherently identified characteristic(s). That is to say, the arguments of counsel cannot take the place of evidence in the record. An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of inherent anticipation/obviousness (See *MPEP 716.01 and 2145: Consideration of Applicant’s Rebuttal Arguments*).

16. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

17. Last but not least, applicant has contended that "*the amorphous phase is generated by specific methods employed to produce the composition (i.e. by firing and the like)*". First, it is noted that the present claims are directed to a product per se (i.e. the positive electrode material powder). Thus, the method of making applicant's product adds nothing to its patentability. Second, there is no evidence of record to show that the method of making the AAPA's positive electrode material is incapable of imparting an amorphous characteristic. Simply put, nothing sustains applicant's contention that the AAPA's product does not have at all a number of amorphous particles which might constitute the entirety of the powder.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 1745

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro
Primary Examiner
Art Unit 1745



RAYMOND ALEJANDRO
PRIMARY EXAMINER